

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/19075

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01J 35/02, 8/00

US CL : 422/120, 122, 123, 124; 423/245.3, 210, 219; 204/157.3

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 422/120, 122, 123, 124; 423/245.3, 210, 219; 204/157.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,770,033 A (MURPHY et al) 23 June 1998 (23.06.1998), see entire document.	1-48
Y	US 6,149,810 A (GONZALEZ-MARTIN et al) 21 November 2000 (21.11.2000), see entire document.	1-48
Y	US 6,387,241 B1 (MURPHY et al.) 14 May 2002 (14.05.2002), see entire document.	1-48
Y	US 6,391,272 B1 (SCHROEDER) 21 May 2002 (21.05.2002), see entire document.	1-48
Y	US 6,409,928 B1 (GONZALEZ et al) 25 June 2001 (25.06.2002), see entire document.	1-48
Y	US 6,500,387 B1 (BIGELOW) 31 December 2002 (31.12.2002), see entire document.	1-48

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- "&" document member of the same patent family

Date of the actual completion of the international search

23 February 2004 (23.02.2004)

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Krisanne M. Thornton

Telephone No. 703-308-0661

Jean Proctor
Paralegal Specialist